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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/367,040	08/06/1999	ALEXANDRA BROWNFIELD	MERCK2009	3802

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EXAMINER

KRUER, KEVIN R

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 11/06/2003

24

Please find below and/or attached an Office communication concerning this application or proceeding.

CLO24

Office Action Summary

Application No.

09/367,040

Applicant(s)

BROWNFIELD ET AL.

Examiner

Kevin R Kruer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 16- 24, 26-28, and 30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no support in the original disclosure for the limitation "mean particle size of 1-60um." The original disclosure only has support for particle sizes of 1-60um. Whereas the term "particle size" refers to a single point within the claimed range, a "mean" particle size" indicates that inorganic platelet form substrates can have a variety of particle sizes within the claimed range. There was no teaching or suggestion of a distribution of particle size within the range of 1-60um and the claim limitation therefore constitutes new matter.

Claim Rejections - 35 USC § 102

3. The rejection of claims under 35 U.S.C. 102(b) as being anticipated by DE 4238378A has been overcome by amendment.
4. Claims 16-19, 21, 23, 24, and 28-30 are rejected under 35 U.S.C. 102(b) as being anticipated by 46-026406 (herein referred to as Shiohara). Shiohara teaches a pearlescent paper comprising a hydrolytic organic titanium compound or titanium compound halide that is adhered to flat microcrystals having an average diameter of 20-

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100um and a thickness of 500-1,000um. The prepared microcrystal is added to papermaking raw material during papermaking process (claim 1) in amounts of 4wt% based upon the weight of the pulp (See examples). The micro crystal may comprise mica (page 4, lines 3+ of translation). The paper may further comprise color pigments (last line of page 5).

With respect to claim 19, the examiner takes the position that titanium dioxide reads on the claimed "electrically conductive pigment."

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over 46-026406 (herein referred to as Shiohara), as applied to claims 16-19, 21, 23, 24, and 28-30 above. Shiohara is relied upon as above. Specifically, Shiohara teaches that the microcrystal may comprise ferric oxalate, zinc hydroxide, manganese oxalate, manganese sulfuric acid, barium oxalate or mica (page 4, lines 3+). Shiohara does not teach that the micro crystals may be blended. However, the courts have held that it is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose in order to form a third composition to be used for the very same purpose. The idea of combining them flows logically from their having been individually taught in the prior art. Thus, it would have been obvious to one of ordinary

skill in the art to utilize a blend of said micro crystals as the pearlescent pigment taught by Shiohara in order to reduce cost and weight.

7. Claims 16-21, 23, 24, and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over 46-026406 (herein referred to as Shiohara) in view of Berger et al (US 4,740,269). Shiohara teaches a pearlescent paper comprising a hydrolytic organic titanium compound or titanium compound halide that is adhered to flat microcrystals having an average diameter of 20-100um and a thickness of 500-1,000um. The prepared microcrystal is added to papermaking raw material during papermaking process (claim 1) in amounts of 4wt% based upon the weight of the pulp (See examples). The micro crystal may comprise mica (page 4, lines 3+ of translation). The paper may further comprise color pigments (last line of page 5).

With respect to claim 19, the examiner takes the position that titanium dioxide reads on the claimed "electrically conductive pigment."

With respect to claim 20, Shiohara teaches that the microcrystal may comprise ferric oxalate, zinc hydroxide, manganese oxalate, manganese sulfuric acid, barium oxalate and mica (page 4, lines 3+), but does not teach that the micro crystals may be blended. However, the courts have held that it is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose in order to form a third composition to be used for the very same purpose. The idea of combining them flows logically from their having been individually taught in the prior art. Thus, it would have been obvious to one of ordinary skill in the art to utilize a blend of said micro crystals as the pearlescent pigment taught by Shiohara.

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Shiohara does not teach that the paper may be marked by exposing it to laser radiation. However, Berger teaches a process of making authenticating marks on paper by contacting with laser radiation from a laser light source (abstract). The laser makes a relief like authenticating mark by effecting structural changes in the fiber of the paper (col 1, lines 56+). Thus, it would have been obvious to one of ordinary skill in the art to expose the paper of Shiohara to a laser in order to make an authenticating relief-like mark on the paper.

8. Claims 16-23, 24, 27, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over 46-026406 (herein referred to as Shiohara) in view of Humphrey (US 3,770,577). Shiohara teaches a pearlescent paper comprising a hydrolytic organic titanium compound or titanium compound halide that is adhered to flat microcrystals having an average diameter of 20-100um and a thickness of 500-1,000um. The prepared microcrystal is added to papermaking raw material during papermaking process (claim 1) in amounts of 4wt% based upon the weight of the pulp (See examples). The micro crystal may comprise mica (page 4, lines 3+ of translation). The paper may further comprise color pigments (last line of page 5).

With respect to claim 19, the examiner takes the position that titanium dioxide reads on the claimed "electrically conductive pigment."

With respect to claim 20, Shiohara teaches that the microcrystal may comprise ferric oxalate, zinc hydroxide, manganese oxalate, manganese sulfuric acid, barium oxalate and mica (page 4, lines 3+), but does not teach that the micro crystals may be blended. However, the courts have held that it is prima facie obvious to combine two

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compositions each of which is taught by the prior art to be useful for the same purpose in order to form a third composition to be used for the very same purpose. The idea of combining them flows logically from their having been individually taught in the prior art. Thus, it would have been obvious to one of ordinary skill in the art to utilize a blend of said micro crystals as the pearlescent pigment taught by Shiohara.

Shiohara also does not teach that the paper may further comprise a light sensitive pigment. However, Humphrey teaches that a composition comprising (a) 2-7wt% zinc borate or barium borate, (b) 2-75wt% antimony oxide, and (c) 15-85wt% organic halide source may be added to paper in order to improve its flame retardance (abstract). The examiner notes that antimony oxide is a light sensitive pigment (see page 8, first paragraph of the specification). Thus, it would have been obvious to add the composition taught in Humphrey to the paper taught in Shiohara in order to improve the paper's fire retardance.

9. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shinmoto et al (US 5,897,938) in view of Schmidt et al (US 6,019,831). Shinmoto teaches a laser marking composition containing an inorganic powder and a binder (abstract). The composition may be applied to packing paper, labels, and cans made of paper (col 5, lines 34+).

Shinmoto does not teach that the inorganic powder should be platelet form. However, Schmidt teaches a non-lustrous iron oxide containing color pigment having a particle size of less than 60um and comprising a platelet-like substrate (abstract). The pigment exhibits high color intensity and high hiding power (col 2, lines 1+) and may be

used as a laser markable pigment in plastic composition (col 11, lines 63+). Thus, it would have been obvious to one of ordinary skill in the art to utilize the pigment taught in Schmidt as the inorganic powder taught in Shinmoto because said pigment exhibits high hiding power and high color intensity.

Response to Arguments

Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin R Kruer whose telephone number is 703-305-0025. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau can be reached on 703-308-2367. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

K R K

Kevin R. Kruer
Patent Examiner
Art Unit 1773

Paul Thibodeau

Paul Thibodeau
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